

SEMINOLE COUNTY REHABILITATION STANDARDS

General Specifications:

These specifications are designed to cover all areas of work and take precedence over the work write-up and any construction drawings. The specifications are intended to represent items of a quality level known to meet Seminole County's requirements. While the County endeavors to provide written specifications that are accurate and non-restrictive for the purpose of bidding/quoting, they may reference an item by manufacturer's name and number per 24 CFR 85.36 (12) (c) (vi). Materials/products equal to those specified may be used.

Note: All products and materials listed below may be substituted with an "equal or better" product and material of "equal or lesser cost" or as required by Local, State and/or Federal codes or regulations.

- All items must be new unused products with full warranties.
- All appliances are to have Energy Star Ratings.
- All refrigerators must be at least 18 c.f. or larger.
- All Water Heaters, HVAC, to have 13 SEER rating or better.
- All roofing shingles to be 30 year life guarantee or better, lightest color available that coordinates with outside home wall color, client's choice.
- All paint to be 20 year warranty or better.
- All Interior painting to be antique or off white, one color if painting is throughout the home.
- All Interior patch painting to match existing wall or ceiling color.
- All outside painting color clients choice with contrasting trim to coordinate with local Homeowners Association or City/County standards.
- All carpet and pad to be FHA 10 year quality or better, low nap one color throughout house.
- All kitchen counters to be seamless laminate.
- All kitchen cabinets to be FHA quality or better.
- All warranties on all items used must be submitted with the request for payment. Examples: Fans, appliances, water heaters, HVAC, light fixtures, shingles, plumbing fixtures, vinyl, carpet, etc.
- All workmanship guaranteed a minimum of one year after completion of job.
- All roof workmanship guaranteed a minimum of one year after completion of job.
- All products and materials must be installed/constructed in accordance with the manufacturers industries standards recommendations and accepted practices and workmanship.

Completion of Work:

At the completion of the project the contractor will inform the homeowner how to use and maintain all installed fixtures, appliances, air conditioning systems, smoke detectors, etc. The contractor will explain all guarantees/warranties and give documentation of guarantees/warranties to the homeowner. The contractor will also supply the County and the homeowner with a list of all subcontractors used to install major components, i.e. plumbing, electrical, air conditioning, etc., with their address(es), phone number(s) and license numbers.

Materials:

- All material shall be new, in good condition, and of standard grade unless otherwise agreed to in writing before their purchase or delivery to the job. Products and materials should be installed in accordance with manufacturer's directions and specifications.
- Product types, sizes, colors, etc. shall be in accordance with this specification. Unless authorized by the County or its Designee, any product or material that does not match the specification sheet will be removed and replaced with the contractor assuming and absorbing all costs incurred.

Incidental Items:

Items not mentioned in these specifications, the architectural drawings, or the rehabilitation write-up, that can be reasonably and legitimately inferred to, belong to the work described, or be necessary, in good practice, to provide a complete system shall be furnished and installed as though specified in every detail.

Inspection of Work:

The Contractor shall facilitate inspection of the work during normal working hours by authorized inspectors, and the work shall be subject to inspector's acceptance.

Subcontractors:

When subcontractors are employed they shall be bound by the terms and conditions of this contract insofar as it applies to their work. This shall not relieve the General Contractor from the full responsibility for proper coordination, notification and completion of all work executed under this agreement.

Warranty:

All new construction work must be warranted/guaranteed by the Contractor for a period of at least one (1) year. Roof work must be warranted/guaranteed by the roofing Contractor for a period of at least one (1) year. During the warranty period, if the contractor is notified of a problem, by the homeowner or a representative of the County's staff, he must respond within ten (10) working days. If the Contractor feels the problem does not fall under the requirements of the warranty or is a result of the homeowner, the contractor should notify the County. The County's Community Development Office designee will make all final determinations in regard to corrective action. In the event corrections are not made within the required time limit the County reserves the right to remove the Contractor from the bid list until all corrections have been completed.

Building Codes:

All work shall be done in accordance with the current Federal, state and local, statutes, codes and ordinances. The 2004 Florida Building Codes, the Florida Fire Prevention Code, and the National Electrical Code shall apply to construction.

Clean Up:

All construction site debris will be placed in a container on a daily basis. No debris is to be left anywhere on or in the premises. All areas will be thoroughly cleaned at the completion of the project. All debris will be disposed of legally.

Bathtub - Gateway Bathtub, Eljer Plumbingware

Bathtubs and Showers - Lascoat™ 2-Piece Tub and Shower Unit, Lasco Bathware Molded sectional. BathLock™ front installation system. Integral toiletry shelves and acrylic.

Bathtubs and Showers - Ventura Enameled Steel Bathtub, Eljer Plumbingware one-piece construction for recess installations. Diagonal brace. Sound-deadening foundation pad. Straight tiling edges. Full wall flange. Slip-resistant bottom. 40-gallon capacity. 60-inch by 30-inch by 15-1/4-inch.

Carpet Pad - Carpet Cushion, Leggett & Platt; 6-Pound, 7/16" Thick Ultimate, Red and Black; 8-Pound, 5/16" Thick Berberbond, Blue and Black.

Ceiling Fan - With Light Kit, 52-Inch Home Depot Brand.

Ceiling Mount Fixtures - Glass Globe Ceiling Light Fixture. 8-inch white dome fixture with polished brass fitter. Uses one 60 Watt bulb, sold separately. UL Listed.

Ceiling Texture - Interior Paint Ceiling Spray, Popcorn Supreme Polystyrene - Acoustical, Litex, Inc. Polystyrene.

Ceramic Decorative Tile – 4x4 American Marazzi.

Composition Shingles - Fiberglass Asphalt Shingles, Timberline® Select 30, GAF "Shadow Accent™". 12" x 36". Class A fire and wind ratings.

Cooktops - 30" Built-In Gas Cooktop, GE Appliances; No. JGP328WECWW, White.

Cooktops - 30" CleanDesign Electric Cooktop, GE Appliances.

Dishwashers - 6-Cycle Dishwasher, GE Appliances; Push-button controls operate with ease. QuietDesign™ sound package or better.

Door, Exterior Steel - 6-Panel Prehung Swing Out Steel Door with peep hole, Stanley® 24-gauge galvanized steel construction. Foam core. 12" lock block adds strength to lockset and deadbolt. Impact-resistant laminated glass adds to overall security. Matching framing, hinge and sill finishes. Jamb guard security plate resists forced entry. No brick mould. Fixed sill. 4-9/16" primed jamb. Triple sweep and compression weatherstripping eliminates drafts. Factory primed,

ready to paint any color. Thermal-break threshold. 20-minute fire rating. 10-year limited warranty.

Door, Interior - Pre-hung Flush Lauan - Includes casing. Hollow core. Finger-jointed jamb. Ready to paint.

Door, Interior Bi-Fold, Flush - Lauan, Premdor , 1-3/8" thick. 2-door. Pre-hinged. Includes track, hardware and instructions. 80" high. Prehinged, pre-fit ready to install. Ready to paint, stain or varnish.

Door, Screen - EZ Hang Villager Metal Screen Door, Villager Series in black, bronze or white. Metal Industries . 1" x 2" frame. Kick plate. Reversible hinge. Includes all hardware. Prehung.

Door, Storm, Self-Storing - Series 941, Metal Industries, Pneumatic closer and sweep. Tempered safety glass. Maintenance-free finish in Black, Bronze or, White. Push-button hardware. 1" x 2-1/8" frame size. Includes screen.

Doors, Patio, Vinyl - Better-Bilt Aluminum Products, Series 470 HP, Bronze or White, Single Glaze.

Dryer Venting - Flexible Vent Duct, Deflect-O.

Drywall Texture Patch - , Spray Texture, Spraytex.

Entry Locksets - Keyed Entry Knob, Kwikset , Polished Brass, 2-3/8" backset. 1" x 2-1/4" square corner faceplate, 2-1/4" high full lip square corner strike. Keyed exterior. Turn-button on inside. Labor to include mortising of door.

Entry Locksets - Keyed Entry Lever Lockset, Lido, Kwikset . Lifetime finish and lifetime mechanical warranty. Grade 2 security. Pick resistant. Dual torque springs for increased durability and performance. No sagging. 3-step installation. Labor to include mortising of door(s).

Entry Locksets, Deadbolt – Defiant . Adjustable latch to fit 2-3/8" and 2-3/4" backset. 1" throw. Hardened steel roller. Adjustable backset. To meets or exceed ANSI (American National Standards Information) test for over 200,000 opening and closing cycles. Polished brass. Labor to include mortising of door(s).

Faucet, Kitchen - Single-Handle, Deck Spray, Delta Deck mount. 8" center set. 3-hole installation. Vegetable sprayer included. Machined brass valves. Washerless design. Lifetime warranty.

Faucet, Kitchen, Dual-Handle - American Standard Cadet . Deck mount.

Faucet, Laundry - 2-Handle, Glacier Bay Deck mount. 4" center set. Drip-free washerless cartridge. Standard 3/4" hose thread on end of spout. 12-year limited warranty.

Faucets, Tub and Shower - Single Control Tub And Shower Set, Moen . Pressure balanced. Lever handle. Includes adjustable-spray shower head, arm and flange, and diverter spout with flange. ADA compliant.

Flashing, Roof - Galvanized Metal Roof Edge, Z-Flashing, gauge per code. Valley and Roll Flashing, Southeastern Metals, Galvanized gauge per code.

Flood Light - with Photo Cell, Lights of America.

Gas Ranges - 30" Gas Range, Free-Standing, Hotpoint; Lift-up cook top with easy-clean subtop. Twin cook top burners. Extra-large standard cleaning oven with 2 shelves. Standing pilot ignition system. Drop-down broiler drawer. Dimensions: 26-1/2" deep x 30" wide. No. RGB508PPAWH.

Gutters and Downspouts - 5" Hi-Tensile Aluminum Gutter and accessories, Amerimax.

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Gypsum Board - Permapase™ Cement Board, National Gypsum w/double-wrapped edge.

Gypsum Board (bathroom) - USG Sheetrock® Moisture -Resistant Gypsum Panel; 1/2" Thick, 4' x 8', Greenboard.

Gypsum Board -USG Sheetrock® Drywall Panel 1/2" Thick, 4' x 8'.

Insulation, -Air Infiltration Barrier, Roll - Tyvek Homewrap

Insulation, Batt - R-30 Kraft Face, 23" Wide.

Insulation, Fiberglass Roll - PinkPlus™ and PinkWrap™, Owens Corning.

Lavatory Sink - Drop-In - Eljer Plumbingware, Round. Enameled steel. Self-rimming. Two soap depressions. Front overflow. Includes mounting clips.

Lavatory Sink - Oval Drop-In Lavatory Sink, Vitreous china, Self-rimming, Front overflow. Eljer Plumbingware.

Lumber:

- **Cedar** - Western Red Cedar.
- **Douglas Fir** - Standard and Better Kiln Dried Douglas Fir.
- **Framing, Treated** - No. 2 Pressure Treated Southern Yellow Pine, .25.
- **Southern Yellow Pine** - Kiln Dried No. 2 Prime Southern Yellow Pine.
- **Steel Studs** - 25 Gauge Steel Studs and tracks.
- **White Wood** - Kiln Dried No. 2 and Better White Wood/SPF Nominal sizes. Actual size is about 1/2" less when dry. "SPF" may be spruce, pine, or fir.

Lockset - Keyed Entry Knob Combo Pack With Deadbolt, Kwikset.

Modified Bitumen - Per current and applicable code.

Outdoor Security Light Fixtures - Entry and Patio Security Light, Regent Lighting; Aluminum construction with black finish. Perfect for entries, patios, pools and decks. 8500 square foot coverage. On at dusk, off at dawn operation. Mounts to standard lamp holder mounting plate with adapter. Uses high pressure sodium bulb type, 70 watt, S62, medium base. Operates on 120 volt. Dimensions, 11-inch long x 8-1/2-inch high x 8-inch wide. Lifetime warranty. UL Listed for wet locations.

Paint - Interior and Exterior Enamel, Premium Plus®, Behr.

Range - Electric, GE Appliances Spectra™ Free-Standing QuickClean™.

Receptacle, Duplex, Residential Grade – Leviton . 125 Volts. Large head terminal screws accept up to 10-gauge copper or copper-clad wire. Quickwire push-in terminals accept up to #12 copper or copper-clad wire. All screws in place. Shallow receptacle preferred by professionals. Ivory. UL Listed.

Refrigerators – GE, minimum 18 cubic feet.

Register and Grilles – Supply and Return Air Grille, Sidewall or Ceiling Register Grille, Three-Way, Stamped steel, Curved blade damper. White EDP finish. Selkirk Metalbestos.

Roofing Felt, Building Paper - 15-Pound Roofing Felt, Asphalt saturated. ASTM code approved.

Roofing, Rolls, - Mineral Surface - Mineral Guard Roll Roofing, GAF Fiberglass reinforced. Meets ASTM D 3909. 2" selvage-edge overlap.

Seismic and Hurricane Ties - Simpson Strong-Tie; Galvanized finish.

Shower Stall, One-Piece - Lascoat™, Lasco; One-Piece Shower Stall, Lascoat™, Lasco; Integral toiletry shelves; center drain; slip-resistant, textured bottom not listed by IAPMO or FHA.

Shower, Stall Wall Kit - American Shower And Bath.

Side by Side Refrigerators – GE, minimum 18 cubic feet.

Siding, Cement Fiber - Fiber Cement Lap Siding.

Sink, Stainless Steel - Single Bowl - Signature Series, Elkay®.

Smoke Detector - Alarm Control Smoke Detector, Firex® with False Alarm Control™ quiets unwanted alarms for up to 15 minutes. Battery backup. Inter-connectible with up to 18 units. Quick-connect wiring harness. 5 year limited warranty.

Soffit and Fascia, Aluminum - Aluminum Vented, Amerimax, color to be white (match existing trim where other than white).

Storm Door - Ultracore™ Dual-Vent Full-View Storm Door, Emco Specialties Triple-Track window system allows ventilation from top or bottom or both. 1" Forevertch™ composite frame, tough as steel, hard as rock. Solid-brass handle set with separate deadbolt security. Color is molded through the door so scratches wipe clean. Forever push-button closer holds door open with the click of a button. One-piece construction keeps moisture out. Elegant brass-finished sweep ensures tight seal across entire threshold. Black, Bronze or, White.

Toilet Seat - Solid Plastic Toilet Seat, Bemis Manufacturing Lightweight.

Toilets (Water Closets) - Patriot Toilet Bowl, Eljer Plumbingware . 1.6-gallon flush. Vitreous china. Two-piece. Elongated rim. Siphon action bowl with shelf-top tank.

Tub And Shower Faucet - Single Control, Moen Clear knob. To include, shower head, arm, flange, and diverter spout.

Tub Wall, Tub Surround - 5-Piece Overlap Construction Design Tub Surround, Tall Elite; 2 towel bars and 6 shelves. Fits alcoves from 49-inches to 60-1/2-inches wide by 28-inches to 31-inches deep. Panels are easy to trim for window openings. Limited 5-year warranty. White high-gloss finish.

Vanity and Top Combos - White Vanity with Cultured Marble Top, Woodcrafters , Arkansas style. Rigid thermofoil front. Raised square panel door. Concealed 35mm European hinges. Glue and dowel construction. Full overlay frameless construction. Fully assembled. Faucet sold separately. 18" Wide x 16" Deep.

Ventilated Wardrobe/Storage/Utility Shelving - Closet Maid®. One-piece vinyl coated steel construction with 1-inch spaced wires including horizontal bar for hanging items.

Vinyl Siding - Castle Ridge® Vinyl Siding, Georgia-Pacific Double 5" traditional lap profile, 12' long panels, 10" exposure, .044" thick, deep-embossed wood-grain texture to look like wood with matching trim and accessories.

Wallboard - USG with fiberglass joint tape.

Water Heater - Electric or gas, General Electric 40 gallons, Energy Star Rated.

Water Heater, Electric - Profile Performance™, General Electric. 12-year warranty. Include temperature and pressure relief valve. Brass drain valve. Self-cleaning system. Stainless steel heating elements. 53 gallons per hour recovery rate. 21" diameter, 46" height. \$397 estimated annual operating costs. 0.92 energy factor. 20 R-Factor on insulated jacket. Meets or exceeds NAECA and ASHRAE requirements.

Window Sill – Imitation marble sill

Windows, Aluminum Series - Better-Bilt 770 Single-Hung Tilt-In Aluminum Window, Single glazed. Operating sash tilts in for easy cleaning. Designed with front flange for block type construction. Spiral balances for easy sash operation. Marine glazed. 1-inch nail fins on head and

7/8-inch jambs on sill. 1/2 screen. 2-inch frame depth. R30 AAMA certified. Continuous coverage warranty. By actual size, width x height.

1. CONCRETE

These general specifications are mandatory where applicable:

- a. No concrete shall be placed over grass, roots, or foreign material.
- b. All reinforcing shall be free of scale or coatings that reduce concrete bond.
- c. All reinforcing rods shall be deformed, except plain reinforcement shall be permitted for spirals or tendons. Reinforcement shall be permitted per ASTM Standards listed in ACI 318.
- d. All concrete slabs shall be separated from existing construction by 1/4" asphalt impregnated expansion control joint.
- e. Fill dirt shall be clean and free of deleterious material.
- f. All materials used for concrete forms shall be removed after concrete has set. Voids in exposed concrete surfaces shall be filled with cement and dressed smooth.
- g. Concrete to have a minimum strength of 2500 psi.

2. PIERS AND BASES

Piers shall be of reinforced concrete (2500 psi) minimum dimension 8" x 8" height equal to distance from bottom of joist or sill to existing ground surface.

Termite shields shall be placed on top of all piers.

Bases shall be minimum 4" thick concrete (2500 psi) 16" x 16" or larger. Bases must be set on firm soil below existing ground level. Bases shall not be set on grass, weeds, or other deleterious material.

3. STEPS

a. Precast

Steps shall be standard size, placed over concrete slab, 4" x 4'-0" x 4'-0" and firmly anchored.

b. Hollow Placed

Steps shall be formed in place over 8" x 16" footer. Wall thickness shall be minimum 4"; maximum rise and tread dimensions shall comply with the Florida Building Code (2004-Residential).

c. Frame

Steps shall be P.T. 2" x 12" stringer, Riser and tread dimensions shall comply with the Florida Building Code (2004-R). Bottom of stringers shall rest on concrete pads and be firmly anchored. Treads shall be installed with crown of wood up and only galvanized nails will be used.

d. Safety Rail

Rail shall be of material called for in work write-up by specialist and firmly anchored at both top and bottom using an approved method and galvanized bolts, screws or nails. Rail shall be 36". A 4" diameter sphere cannot pass through any opening up to a height of 34".

e. Other

Any other type steps not listed will be written in detail on bid specifications.

4. FOOTINGS

Footings shall be minimum 2500 psi reinforced concrete. Reinforcing steel shall be deformed, with a minimum lap of 40 bar diameters. Footing reinforcements shall have a minimum concrete coverage of 3" on bottom and sides. Form work shall be used when existing soil is not sufficiently firm to retain concrete. No concrete shall be placed over grass, roots, or foreign material.

5. FOUNDATION WALLS

Masonry walls shall be nominal 8" x 8" x 16" hollow masonry block laid with full mortar bedding in a running bond, unless otherwise specified.

6. CONCRETE SLAB

All concrete slabs shall be a minimum 4" thick, 2500 psi concrete. Reinforcing shall be 6" x 6" No. 10/10 welded wire over 6 mil waterproof membrane after approved application of termite treatment. No concrete to be placed on grass, roots, or foreign material. All back fill shall be well tamped and level before placing of concrete. Top of slabs placed on existing grade shall be minimum 8" above surrounding soil. Termite treatment is required.

7. CARPENTRY-GENERAL SPECIFICATIONS

These general specifications are mandatory where applicable:

a. Framing shall be level, straight, plumb and true. Framing shall fit closely; set to line and level indicated and fastened in place rigidly. Framing members shall not be cut, notched, or bored more than 1/4 of their depth without adequate approved reinforcing. Boring shall be in the middle 1/3 of the member. Floor joists shall not be cut, notched, or bored more than 1/6 of their depth. Any such cut, notched, or bored shall not exceed 2" in diameter and shall be in the end 1/3 of span only.

b. All studs shall be 16" O.C. All exterior and load bearing stud walls shall have double top plate.

c. All exterior and bearing walls shall have minimum header design per F.B.C. for all loads over all openings. Any rough opening exceeding 5 LF in width will require solid 1/2 plywood core running continuous length of header.

- d. All structural framing lumber shall be construction grade or better. Moisture content shall not exceed 19 percent at time of installation.
- e. No untreated wood shall be in contact with paving, concrete or masonry within 6" of finish grade. All wood within 6" of the finished grade shall be preservative Treated.
- f. Furring strips applied to masonry shall be 1" x 2" pressure treated pine.
- g. All framing exposed to weather shall be nailed with galvanized nails. All exterior nailing shall use galvanized nails.
- h. Minimum thickness of sill plates shall be nominal 2". Minimum, bearing for ends of joists on wood framing shall be 3-1/2". Sills in contact with masonry or concrete shall be preservative treated.
- i. All new untreated exposed wood must be primed or stained within 48 hours of installation.

8. FLOOR FRAMING

- a. All new or replaced floor joists shall be supported at their extreme ends by either a 2" x 2" ledger or metal joist hanger. Toe nailing only will not be acceptable. No splicing of floor joist between supports will be permitted.
- b. When replacing deteriorated floor joists; new joists shall be of No. 2 yellow pine or equal, pressure treated and having same dimensions as old joists.

9. EXTERIOR WALL FRAMING SPECIFICATIONS

- a. Unless plywood sheathing is used, new corner posts on exterior wooden walls shall be diagonally braced per F.B.C. (2004 Residential/2004 Existing).
- b. Top plates shall be double 2 x 4's. Plates shall be lapped at corners and lapped or anchored to principal intersecting partitions. Splices in lower member of top plate shall occur over studs and in upper member at least 4 feet away from splice in lower member.
- c. Top plates for interior non-bearing partitions may be single. When top plate is parallel to ceiling or floor framing, install 2 x 4 cross blocking not more than 4 feet O.C., unless double joists are provided top and bottom.

10. NEW INTERIOR STUD WALL

A new stud wall should be built as described in specifications. Studs shall be nominal 2" x 4" on 16" centers. Sole plates shall be pressure treated if laid on masonry or concrete.

11. ROOF FRAMING-GENERAL SPECIFICATIONS

a. Conventional Framing

When a ridge board is to be installed, it shall be a minimum of 1" in thickness and not less in depth than the cut ends of the rafters it joins.

Ceiling joists and rafters shall be nailed to each other where possible. Ceiling joists shall be continuous or joined together over a partition to provide a continuous tie across the building.

Plywood sheathing shall be minimum 4'-0" x 8'-0" x 1/2" thick with butt clip between rafters. Solid sheathing shall be a nominal 1" x 12". Strip sheeting shall be 1" x 4" on 12" centers. All end joints shall be made over rafter. Adjacent end joints shall be staggered. Sheathing supporting barge or trim rafter shall extend back onto roof minimum of 4'-0".

When replacing a fascia board, its length shall be sufficient to reach a minimum of three (3) rafter ends.

b. Manufactured Truss System

When called for in the Work Write-Up, a trussed roof system will be custom engineered and installed for the specific house being rehabilitated. Trusses will be installed per manufacturer's specifications and properly secured to bearing walls. Overhang will match existing or be specified in Work Write-Up.

12. UNDERLAYMENT

a. Underlayment shall be 3/8" B-C exterior plywood or 3/8" underlayment plywood or approved equal. No CDX with unfilled voids will be allowed.

b. Any loose flooring or boards to be securely nailed prior to underlayment installation. It shall be nailed securely in a minimum 5" square pattern with screw shank nails to prevent bulging and loose or springy areas. Seams and butts shall be made over floor joists. Plywood seams shall run at right angles to sub flooring seams whenever possible. A suitable filler (Fix-all or equal) shall be applied over seams, indentations, or other openings in the underlayment to provide a smooth surface suitable for resilient floor covering.

13. HARDWOOD FLOORS-SAND AND VARNISH

a. Repairs

Shoe molding shall be removed and all defective hardwood flooring taken up from the subfloor using care not to rip up or break the tongues from the flooring strips or places that are intended to be retained. Then new matching flooring shall be laid in accordance with the best standard practice of the trade. The entire floor (both existing and repaired) shall then be inspected for protruding nails and any nails found to have popped out shall be countersunk. All flooring will be blind tongue nailed.

b. Refinishing

(1) After all other trades in the area are finished with their work, the flooring shall be stripped, then sanded with a heavy-duty commercial type power-driven sander. Coarse,

medium, and fine grades of sandpaper shall be used to produce a uniform, even, and smooth surface. After sanding, the flooring shall be swept or be vacuum cleaned as necessary to remove all dust and dirt.

(2) Where the hardwood flooring abuts a resilient floor covering, a standard aluminum, edge strip shall be attached at the edge of the flooring with countersunk flathead screws. The aluminum edging shall be as close to the thickness of the installed flooring as possible on one side and shall taper off to a thickness of approximately 1/8" on the other side.

(3) The flooring shall then receive:

(a) If specified in Rehabilitation Report, an approved wood stain (as listed paint section)

(b) A penetrating sealer followed by two (2) coats of hard spar (marine) varnish, or a coat of polyurethane thinned with mineral spirits as a sealer, followed by two (2) coats of uncut polyurethane (min. 45% resin content).

(c) Appropriate barriers and signs shall be erected to keep people from walking on the floor until the floor finish has cured and set. Then paper shall be laid from door to door to inhibit people from walking on the floor.

(d) Shoe mold or quarter round that was removed shall be reinstalled or replaced by new clear wood molding and finished to match floor.

14. EXTERIOR FLOORING

Tongue and groove flooring for exterior porches or enclosed utility rooms shall be 1" x 4" "C" grade Long Leaf Yellow Pine. When the width of an existing wooden porch is 9'-0" or less, flooring shall extend from main body of structure to outer extremity of porch. No splicing will be permitted in any application unless the spliced flooring is 4'0" or more in length. Adjacent end joints in runs of flooring must be staggered.

EXEMPTION 1" x 4" clear fir flooring applied with 6-penny finish nails set and caulked. This application can be used only when called for in Bid Specifications.

15. OAK FLOORING

Flooring shall be 25/32" x 2-1/4" end matched tongue and groove (select red or white oak), sanded sealed, and two (2) coats of varnish or Polyurethane applied. New floors shall be complete with new clear grade shoe mold finished to match floor.

16. PINE FLOORING

Flooring shall be nominal 1" x 4" tongue and groove, "C" grade Long Leaf Yellow Pine, sanded, sealed, and two (2) coats of varnish or Polyurethane applied. New floors shall be complete with new clear grade shoe mold finished to match floor.

17. FLOOR COVERING-TILE

Over underlayment install indicated tile using adhesive recommended by manufacturer. When installing new floor covering, shoe mold shall be replaced with new shoe mold, finished with two (2) coats of pint or varnish as designated by owner.

No self-stick tile will be accepted.

No installation of new floor tile over existing tile will be allowed.

18. FLOOR COVERING-SHEET VINYL

Over underlayment install indicated sheet vinyl using adhesive recommended by manufacturer. When installing new floor covering, shoe mold shall be replaced with new shoe mold, finished with two (2) coats of pint or varnish as designated by owner. Sheet vinyl shall be as manufactured by ARMSTRONG, or equal.

Sheet goods must meet Federal Specification L-F 001641, Type 3, Class 3, or MPS 4900.1, minimum wear layer thickness .010", ARMSTRONG "Builder Basic" or "Castillian," GAFSTAR "Standard," CONGOLEUM "Builderflor" or "Pacemaker," or equal.

19. FLOOR COVERING-CARPET

Carpeting and pad must be F.H.A. grade (Federal Specification UM44-C). Carpet pad, if separate, shall also meet F.H.A. specifications.

20. FLOOR COVERING-CERAMIC

Ceramic floor tile shall equal or exceed the standard grade requirements of U.S. Department of Commerce Simplified Practice Recommendation R-61-61 and Federal Specification SST-308-b. Floor tile shall be standard grade, selected by owner, set in cement mortar "tickbed" base. All ceramic floors shall be finished with ceramic cove base tile.

21. BASE AND SHOE MOLDING

- a. 9/16" x 3-1/4" Clam Shell - F.J. (for painting) or clear (for staining)
- b. Vinyl Base Molding 4"
- c. Standard to match existing
- d. Shoe Molding 3/4"

Finish wood molding with two (2) coats of semi-gloss paint or varnish as designated by owner.

22. WALL FINISH-PLASTER/"BLUEBOARD"

Rake cracks clean, remove loose plaster or drywall and fill holes and cracks with patching plaster, or drywall joint compound as applicable. New repair shall be struck level with surrounding surface and finished to match existing surface texture.

23. WALL FINISH-VENEER PLASTER/"BLUEBOARD"

"Blueboard" is the trade name for any several brands of plaster base with a high strength, high density gypsum core covered with special absorption face paper for application of veneer (1/16" to 3/32" thick) high strength plaster.

Where indicated, damaged areas are to be cut out square with centerline of existing studs or furring strips. New sections are to be fitted to butt loosely to existing base, nailed in place, taped, and new veneer coat applied level with surrounding surface.

In new construction, plaster base shall be attached to 2" x 4" studs 16" on center, or 1" x 2" pressure treated furring strips 16" on center, with nails or screws with 6" to 7" spacing. Sections are loosely butted; joints shall be covered with perforated tape, and filled with a quick setting scratch coat prior to application of the veneer surface.

NOTE: This construction shall not be used where normally exposed to excessive moisture humidity, or temperature.

24. WALL FINISH-DRYWALL

Sheetrock shall be taped, bedded and sanded smooth. Sheetrock may be butted to existing square-cut baseboard. Any existing baseboard, window or door trim not adaptable to butting of sheetrock, shall be reduced to square cut, removed and reinstalled, or replaced with new trim over sheetrock.

When installing new sheetrock in conjunction with new windows, trim may be eliminated and sheetrock returned to windows using metal corner bead and indicated sills, or trim may be removed and replaced.

All openings without doors shall be finished with metal corner bead. Water-resistant gypsum board shall be used in wet area of bathroom, of utility room, or of exterior porch ceiling.

25. WALL FINISH-DRYWALL OVER FURRING STRIPS

Walls shall be 1/2" sheetrock (or other as called for in Write-Up), taped, bedded, sanded, installed over 1" x 2" P.T. furring strips 16" on center. Sheetrock may be butted to existing square cut baseboard. Any existing baseboard, window or door trim, not adaptable to square cut, shall be removed and reinstalled or replaced with new trim over sheetrock. 1" x 4" P.T. shall be installed along floor, and beneath and on both sides of windows. 1" x 8" P.T. shall be installed above windows, and extending 6" beyond each side of window.

When installing new sheetrock in conjunction with new windows, trim may be eliminated and sheetrock returned to windows using metal corner bead and indicated sills, or trim may be removed and replaced.

All openings without doors shall be finished with metal corner bead. Water resistant gypsum board shall be used in wet are of bathroom or utility room.

26. WALL FINISH-(Prefinished Paneling)

To be a minimum of 3/16" in thickness; dent, scratch and stain resistant surface. Installed on a clean flat surface in accordance with good standard construction practice, free of any damage on surface. Nailed in the grooves with colored paneling nails to mach color of groove. All joints to be tight to eliminate cracks from showing. On furred walls, strips to be 16" on centers with P.T. 1" x 2", with one (1) piece of 1" x 4" running horizontal to floor so that base can be nailed into it to keep bottom of paneling from warping. At ceiling, install horizontal 1" x 2" furring strip for nailing ceiling cove and to keep paneling from warping. Trip to be prefinished or natural wooden molding, or simulated vinyl (no fabric covered type) installed in a good construction practice, free of any damage on surface. Install with mitered cuts, tightly fitted and nailed with colored paneling nails to match molding. Flame spread rating of all paneling and trim material to be 200 or less.

27. WALL FINISH-CERAMIC TILE-THINSET

Ceramic tile shall be installed using thinnest. Trim edges with bull nose tile. Wall tile shall equal or exceed the Standard Grade requirements of the U.S. Department of Commerce Simplified Recommendation R-61-61 and Federal Specification SST-308-b. Wall tile shall be of standard grade 4" x 4" x 1/4."

28. WALL FINISH-CERAMIC TILE-MASTIC

Ceramic tile shall be installed in tub area to a height of 60" above tub using mastic on M/R drywall. Trim edges with bull nose tile. Wall tile shall equal or exceed Standard Grade Requirements of the U.S. Department of Commerce. Wall tile shall be of standard grade 4" x 4" x 1/4." Include installation of one (1) towel bar and soap dish in tub area.

29. FIXTURE SET FOR BATH

a. Ceramic

Set shall include paper holder, toothbrush holder, medicine cabinet, one (1) towel bar in addition to soap dish and towel bar in tub area. All fixtures to be securely fastened to wall.

b. Chrome-plated Metal

Set shall include paper holder, toothbrush holder, medicine cabinet, and one (1) towel bar in addition to soap dish and towel bar in tub area. All metal fixtures will be securely fastened with appropriate hollow wall anchors.

30. TILE BOARD

Prefinished wall panels of 1/8" hardboard with water repellent finish and al necessary chromized aluminum, non-oxidizing, tarnish resistant rim shall be applied to wall according to manufacture's specifications. Apply to smooth clean surface.

31. CEILING FINISH-VENEER PLASTER/"BLUEBOARD"

"Blueboard" plaster base (1/2") shall be attached directly to wood joists and nailed 6" on center. Joints shall be covered with perforated tape and fill with quick setting scratch coat of plaster prior to application of the veneer coat (1/16" minimum).

32. CEILING FINISH-DRYWALL

If joists are 16" on center, the ceiling shall be 1/2" sheetrock tapped, bedded, and sanded smooth form painting. (If ceiling joists are 2'-0" O.C., 5/8" sheetrock must be used.) Drywall may be applied directly to existing ceiling.

3/4" to 1-1/2" cove molding shall be used only when ceiling butts to wood or paneled walls.

33. CEILING FINISH-DRYWALL OVER FURRING STRIPS

Ceiling shall be 1/2" sheetrock tapped, bedded, and sanded. Sheetrock shall be installed over 1" x 3" furring strips, 12" on center.

34. DROP CEILING-DRYWALL

Ceiling shall be 1/2" sheetrock taped, bedded, and sanded. New ceiling shall be installed over appropriate dimension new ceiling joists spaced 16" on center. New ceiling joists may be fastened to existing ceiling joists or rafters to prevent sagging--spacing of any supports not to exceed 6'-0".

35. DROP CEILING-SUSPENDED

a. New

Acoustic tile ceiling suspended on exposed or concealed grid system to be installed per manufacturer's specification.

36. CEILING FINISH-TILE

Ceiling tile shall be installed over 1" x 3" furring strips 12" on center. Acoustical ceiling tile shall be of the interlocking type, 12" x 12" x 1/2", pattern and color as selected by the owner. Perimeter of ceiling shall be finished with manufacturer's recommended ceiling molding.

37. SCUTTLE HOLES

Scuttle holes shall be installed in area indicated on Work Write-Up (size: 22" x 36") and trimmed to conform to ceiling surfaces.

38. DOORS-GENERAL SPECIFICATIONS

When installing doors contractors shall repair any surrounding areas affected by this work. The repair work shall be finished so as to conform to the surrounding surfaces.

All doors specified as new shall be complete with new hardware and new lockset - WEISER, DEXTER, or SCHLAGE only. After trimming and fitting of door, all edges

shall receive same finish as sides of door. Threshold and vinyl edge door stop to be included on exterior doors only.

Interior doors shall be 1-3/8" flush, hollow core, lauan or beech, finish as designated by owner.

Exterior combination door shall be 1-3/4" panel lower half, with window and screen insert upper half, varnish grade, finish as designated by owner.

Door stops shall be added where necessary.

Exterior jambs shall be minimum 5/4 stock (Kerfed) jamb material, "C" Fir, or 2 x PT if used in block houses.

If trim is to be stained or varnished, it must be clear stock, not finger jointed.

Door viewer shall be 180° field of vision (min.), and be installed at a height convenient for owner above finished floor.

New exterior doors shall be primed or sealed as soon as possible after they are hung. This includes filling any gaps or holes, priming and sealing all four (4) edges.

39. WOOD SCREEN DOOR

New screen door shall have clear wood stiles, be 2-panel, 1-1/8" thick, complete with all new hardware, automatic closer and locking latch (not keyed)l Finish with two (2) coats of paint or varnish (owner's choice).

40. ALUMINUM SCREEN DOOR

Screen door shall be minimum 1" extruded-aluminum, prehung, with metal jamb, lock and closer.

41. WINDOWS GENERAL-SPECIFICATIONS

When installing new windows, contractor shall repair any surrounding areas affected by this work. The repair work shall be finished so as to conform to the surrounding surfaces.

When installing a new type of window in an existing wooden frame, all grooves, offsets and projections on the side and head jambs and sills shall be finished flush and smooth.

Windows (aluminum awning or aluminum single hung) when specified new, shall include new aluminum screens, permanent weather stripping, positive locking device, nylon or stainless bushings, and aluminum lazing bead. New bathroom windows to have obscure glass. The awning window shall have torque-bar operator. All windows and frames shall be thoroughly caulked at time of installation.

42. NEW WINDOW FRAMING

Window opening shall be framed to fit standard size windows with new casings and trim applied to match existing surfaces. Windows installed in bedrooms shall have an openable area of 24" high and 20" wide with a minimum net clear opening of 5.7 sq. ft. (Exception: Ground floor may have 5.0 sq. ft.).

43. WINDOW, WOOD-NEW SASH

New wooden sash shall be fitted to window opening so as to operate freely, lock properly, and be weathertight.

44. WINDOW SCREEN-ALUMINUM FRAME

New screens shall replace existing so as to give proper ventilation and insect prevention. Aluminum screen wire of 18 x 14 mesh shall be used. New latch and hangers will replace old. All old hooks and latches shall be removed and the holes filled.

45. EXTERIOR SIDING-REPLACING/REPAIRING

New siding shall blend and conform with surrounding area. All joints shall be tight, and adjacent end joints shall be staggered a distance of at least two studs. Caulk all window and door trim.

46. EXTERIOR SIDING-NEW (T-111.R.B. & B., ETC.)

Panels shall be 5/8" x 4'-0" x 8'-0" of pine or fir with no voids or patches on exposed surface. No 303 panels or seconds will be used. Install using 8d galvanized finishing nails 6" - 8" on center and 6" O.C. on panel edges.

Stain or paint per owner's request and according to Spec. No. 89-PAINTING.

47. EXTERIOR SIDING-ASBESTOS

New asbestos shingles shall be as manufactured by Johns-Manville "Ranch Grain Texture": 12" x 24" or equal. (Match existing shingles as closely as possible.) Shingles shall be applied over vapor barrier material as recommended by manufacturer. Caulk all windows and door trim.

48. EXTERIOR SIDING

a. Aluminum

New aluminum siding shall be not less than .024" thickness for wall panels and .032 for siding. Siding shall be installed over a vapor barrier or reflective type insulation as recommended by manufacturer. Installation shall include window J-channel, door channel, inside and outside corners, starter strip, and finish mold.

b. Vinyl

New vinyl siding shall be installed over a vapor barrier or reflective type insulation as recommended by manufacturer. Installation shall include window J-channel, door

channel, inside and outside corners, starter strip, and finish mold. Siding shall be T-Lok solid vinyl siding by Mastic Corporation or approved equal. Product shall be installed by a licensed vinyl siding installer only.

49. EXTERIOR TRIM

a. Aluminum

All door and window trim shall be covered with baked enamel coil stock (minimum .019").

b. Vinyl

All door and window trim shall be covered with vinyl stock.

50. SOFFIT AND FASCIA

a. Aluminum

Soffit shall be built under roof overhand and covered with baked enamel aluminum soffit material over wooden soffit framing. Aluminum soffit material shall be either ventilated, ribbed or V-groove, as selected by owner. Molding and trim shall be baked enamel aluminum. A fascia board shall be installed on rafter ends, and covered with baked enamel aluminum. Soffit shall be constructed 90° to wall, parallel to ground, and soffit supporting "look out" members shall be maximum 24" center to center.

b. Vinyl

Soffit shall be built as above and covered with vinyl as manufactured by Mastic Corporation or approved equal.

51. GUTTERS/DOWNSPOUTS

a. Aluminum

When gutters and/or downspouts are specified, aluminum gutters shall be installed over existing fascia, backstop with hangers recommended by manufacturer. Downspouts shall be placed over concrete or fiberglass splash block.

b. Galvanized

Galvanized gutter and downspout installation, when specified, shall be the same as the above.

52. EXTERIOR SIDING-STUCCO

a. New Installation

All stucco work shall be installed in accordance with ASTM C 926 and C 1063.

If stucco is to be applied over frame construction, a waterproof building paper of 30 lb. asphalt saturated felt must be applied to siding. Over felt, nail 3.4 galvanized metal lath reinforcement wire 7" on center with 1" galvanized roofing nails. Over reinforcement, apply one (1) 1/2" scratch coat, one (1) 1/4" brown coat and one (1) 1/8" finish coat shall be used.

If stucco is to be applied over primed block walls a 3/8" scratch coat and a 1/8" finish coat shall be used.

Block walls with any existing paint, surface coat, or finish that would hinder proper adhesion, shall be sandblasted clean before application, and/or an approved cement bonding agent or lath applied.

b. Repair

Remove all damaged stucco. Repair or replace metal lath or wire fabric as necessary, and apply new stucco to match existing surface.

53. SPRAY CRETE

Shall be applied to clean prepared surface with a masonry bonding, if needed. Two coats machine application, troweled in, but not to be applied over wood. Second coat may have marble glitter at owner's option.

54. ROOFING-GENERAL SPECIFICATIONS

All roofing shall be installed per F.B.C. (2004 Residential). All valleys, flashings, and eaves drip shall be replaced with new F.H.A. grade metal. All bare rafters shall have F.H.A. type metal edge. All vents and stacks projecting through the roof shall have appropriate new boots or flashing. Eaves drip or gravel stop shall overlap a minimum of 3" or a clip will be installed over the joint.

All damaged or rotted sheathing boards shall be replaced with new. End joints shall be made over a rafter. Rotted portions of rafters shall be cut back to good wood and a new rafter rail scabbed-in adjacent to rotted one and extended back into the building a distance equal to 2/3 to 1/3 ratio.

No new roof will be installed over any old roofing. Sheathing supporting barge rafters shall extend back onto the roof at least 4 feet or additional supports installed no more than 2'-0" O.C.

Roofing nails shall not penetrate through roof sheathing at any open or visible spot.

When new roofing is installed, sagging portions of roof shall be braced with minimum 2" x 4" lumber from roof rafters to nearest bearing wall. Purlins or sole plates shall be used when necessary.

When a new roof is installed in conjunction with aluminum fascia, eaves drip or gravel stop, and flashing shall also be aluminum.

55. ROOFING-MODIFIED BITUMEN

Over G-2 glass base sheet or 43# organic felt (Type IV) base sheet, install modified bitumen roofing material per manufacturer's specifications. Modified bitumen roofs shall carry a two-year unconditional warranty.

56. ROOFING-BUILT-UP

a. Tar and Gravel

Over G-2 glass base sheet or 43# organic felt (Type IV) base sheet, install a 4-ply, hot mopped built-up roof. Flood coat surface and cover with white river gravel.

NOTE: If glass base is used, rosin paper must be installed between it and the bare wood deck. Tar and gravel built-up roofs shall carry a five-year unconditional warranty.

b. Smooth Surface

Over G-2 glass base sheet or 43# organic felt (Type IV) base sheet, install a 3-ply fiberglass built-up roof (11-1/2" exposure) and emulsify the finished top surface per manufacturer's recommendations. Over emulsion apply a finish coat of fibered aluminum roof coating.

NOTE: If glass base is used, rosin paper must be installed between it and the bare wood deck. Smooth surface built-up roofs shall carry a two-year unconditional warranty.

57. ROOFING-METAL

Install metal starting strip on barge rafters and roof, indicated sections with five (5) V-crimp metal roofing and F.H.A. type metal drip edge. Existing sections which are free of rust and not damaged may be used providing they are identical to the configuration of the new panels. Panels must be nailed and caulked in conformance with the manufacturer's recommendations.

58. ROOFING-STRIP SHINGLES (FIBERGLASS/ASPHALT)

Apply two layers of 15 pound asphalt felt over 19" overlap. Over felt, install 240 pound self-sealing Class "A" strip shingles per manufacturer's recommendations. Provide a 30 year pro-rated warranty certificate from the manufacturer.

59. OVERHEAD GARAGE DOOR

a. New

Shall meet F.B.C. Code wind standards.

Door shall be of steel or fiberglass, one piece or sectional as called for in Write-Up. It shall be of standard size and opening framed to fit. Installation shall include all new track, hardware, hanger brackets, and springs. New door shall have key lock and lock securely. Door shall be installed so as to be reasonably weather tight.

b. Repair

Repair shall include the replacement or repair or adjustment of existing door hardware to make door fully operational, lockable, and reasonably weather tight.

60. FASCIA/EAVES/SOFFIT-REPAIR

a. Fascia

Deteriorated fascia boards shall be replaced using like material or No. 2 pine of same dimension. When replacing a fascia board, its length shall be sufficient to reach a minimum of three (3) rafter ends.

b. Eaves

Deteriorated sections of eaves shall be repaired by replace rotted rafter tails, sheathing, and fascia board (if existing) with new material to match the existing wood in dimension. All rotted wood shall be cut out and removed.

c. Soffit

Deteriorated sections of soffit shall be removed and replaced with new material to match existing. Replace all deteriorated soffit screening with 18 x 14 mesh aluminum screen wire or aluminum vent strips.

61. SOFFIT-EAVES

All eaves of house/accessory building, including gable ends shall be enclosed. This shall be done by applying 3/8" exterior plywood to underside of rafters. Enclosing of eaves shall include installation of fascia board. Soffit vent shall be 18 x 14 mesh aluminum wire or aluminum vent strips.

62. SOFFIT-FRAMED

Soffit shall be 3/8" exterior plywood installed from end of rafter to wall of structure. Soffit shall be constructed at 90° to wall, parallel to ground, and shall not be attached to bottom of rafters. Maximum spacing for soffit supporting "look out" members shall be 24" center to center. Soffit shall be finished at wall with molding strip and at end of rafter with a fascia board. Soffit vent shall be 18 x 14 mesh, aluminum wire, or aluminum vent strips.

63. CABINETS-VANITY

Lavatory base cabinet shall be clad with mica plastic (1/32" minimum thickness) on sides, front, doors, and drawers. Top shall be approximately 22" wide with 3" back splash, mica "curv-a-top," or wood covered with mica plastic (minimum .050" thickness). Lavatory basin shall be 18" round porcelain enamel on steel. Imitation molded marble tops may be used as substitute. Vanity installation should include new center set pop-up drain, new trap and supplies, and shut-offs.

64. CABINETS-MEDICINE

Shall be standard size of stainless steel, recessed, with minimum three (3) shelves, and plate glass mirror, unless otherwise specified on Work Write-Up.

65. CABINETS-KITCHEN BASE

NOTE: It is the contractor's responsibility when installing new cabinets to allow adequate clearance for the new appliances to be installed and/or the owner's existing appliances to be reinstalled.

a. New

Base cabinets shall be plastic clad (minimum 1/32" thickness) with appropriate doors and drawers. Top of cabinet shall be approximately 25" wide with a 4" back splash covered with mica (.052" minimum thickness).

b. Repair

Repair shall include replacing all hinges and pulls with new and replacing any damaged drawer guides or slides with new. After repair, doors and drawers shall operate smoothly and close properly. All unrepairable drawers and doors will be replaced.

c. Refinish

Interior of cabinets will be repainted with washable latex enamel following accepted paint procedures. Exterior surfaces will be painted or varnished or may be covered with mica at the owner's request.

66. CABINETS-KITCHEN UPPER

NOTE: It is the contractor's responsibility when installing new cabinets to allow adequate clearance for the new appliances to be installed and/or the owner's existing appliances to be reinstalled.

a. New

Upper kitchen cabinets shall be clad with plastic such as Formica V-32 (minimum 1/32" thickness) or equal. All doors shall be trimmed with plastic and painted inside.

b. Repair

Repair shall include replacing all hinges and pulls with new. After repair, doors will operate smoothly and close properly. All unrepairable doors will be replaced.

c. Refinish

Interior of cabinets and shelves will be painted with a washable latex enamel following accepted paint procedures. Exterior surfaces, at owner's request, will be painted, varnished or may be covered with Formica.

67. COUNTER TOP

Shall be approximately 25" wide with 4" back splash covered with mica (.052" minimum thickness) attached to base of chip board or exterior plywood--3/4" thick.

68. CLOSETS

Build a clothes closet in the indicated room by installing 2" x 4" studs, 16'-0" on center from floor to ceiling. Inside dimensions to be 2'-0" by specified length. Closet shall be finished inside and out with 1/2" sheetrock and base board. Install flush, bi-fold, or by-

pass doors neatly trimmed out as called for in Write-Up. Include installation of a clothes shelf, hanger rod and finish flooring.

69. ELECTRICAL

When specified, the following criteria will apply:

- a. New service panel shall include increasing capacity to indicated amps, proper grounding and installing lightning arrester. New service panel box shall include adequate number of circuits to avoid overloads. Label all circuits clearly.
- b. All appliances shall be on separate circuits.
- c. All new and existing exterior outlets and interior outlets in the kitchen, bath and laundry/utility room shall meet N.E.C.210.8 (A) 1-7 with GFCI's.
- d. All exterior doors shall have an exterior light controlled from an interior wall switch.
- e. Each room shall have a light controlled from a wall switch or a switched outlet.
- f. No exposed wire connections will be allowed. All such joints will be properly taped and sealed in an appropriate electrical box.
- g. Closet lights, when specified, shall be recessed units controlled from a wall switch.
- h. New service panel locations shall be in conformance with local codes.
- i. Wiring of new water heater or rewiring of existing water heater shall be in conformance with the National Electric Code (2002).

70. APPLIANCES

When called for new, shall be white or almond in color, in standard dimensions.

a. Electric Ranges

Will have standard oven, clock, and timer and shall be installed and tested for proper operation.

b. Gas Range

Will have standard oven, clock, and timer, and shall be connected to gas supply and tested for proper operation. Duplex receptacle shall be included with range when needed for range accessories.

c. Range Hood

Shall have a light and a fan with a 2-speed motor with minimum 140 CFM minimum speed.

d. Refrigerator

Shall be installed in level position with duplex receptacle of no more than one (1) foot from unit.

71. HEATING

a. Gas

Indicated model shall be installed in area designated and tested for proper operation. No unvented gas heaters will be accepted. All gas piping, appliances and connections shall meet the Florida Gas Code.

b. Electric

Heater shall be installed to meet National Electric Code (2002) and tested for proper operation.

Individual heaters shall be on separate circuits as per code.

Electric water heaters shall be installed complete with separate electric circuit. Proper wiring shall include use of No. 10 wire protected by Greenfield, bonding the hot and cold water pipes and grounding of unit.

72. APPLIANCE AND HEATING EQUIPMENT-REPAIR

All appliances such as ranges, refrigerators, range hoods, and all heating equipment shall be repaired and tested to assure safety of operation and maximum durability.

73. PLUMBING

Fixtures:

All tubs, sinks, lavatories, and water closets, when provided new, shall be installed complete. New water lines shall be 1/2" copper, cpvc or pex joint piping per code. Where connecting copper to existing iron pipe, a dielectric union is required. All new chrome trim and fittings to include: faucets, traps, supply and return pipes, stops, diverter valve, lead and brass stubs, water closet in-and-out parts. As specified, shower rod shall be aluminum, or stainless steel screwed to wall.

Water lines, waste lines, and vents shall be of size and material approved by the Plumbing Code.

Gas water heaters shall be installed complete with gas lines and properly vented in accordance with applicable codes.

A drain pan shall be installed under the water heater with a 1" diameter waste pipe and relief valve.

74. NEW ADDITIONS

When new additions are specified, all materials and workmanship shall comply with applicable codes and requirements.

75. ACCESSORY BUILDING-METAL

a. All metal utility buildings shall be prefabricated aluminum type with P.T. floor joists installed and anchored according to manufacturer's directions.

b. The building 8'-0" x 10'-0" or larger shall contain one (1) 3'-0" x 6'-8" metal door with lock in handle and an optional aluminum single-hung or awning window, as called for in the Write-Up.

- c. When metal wall panels are less than .032 thicknesses and meet F.B.C. 2004.
- d. All metal utility buildings shall be weather tight and designed so that the interior floor will be dry.

76. ACCESSORY BUILDING-FRAME

Construct a frame accessory building to specified dimensions along with a minimum 3/12 roof pitch and 12" minimum roof overhang.

Garage shall be constructed as follows:

- a. 8" x 16" continuous footer per F.B.C. (2004 Residential)
- b. 4" concrete floor slab reinforced with 6" x 6" - 10/10 wire mesh, 6 mil vapor barrier and termite treatment.
- c. 2" x 4" studs on 16" centers pressure treated, sole plate, double top plate.
- d. Install engineered truss system, or conventionally frame per F.B.C. (2004 Residential) Chapter 23." Hurricane clips every rafter. 1" x 8" cedar or #2 pine fascia with 1" x 2" drip strip of same material. Box in soffit and gable overhang with 3/8" exterior grade plywood. Roof sheathing to be minimum 4'-0" x 8'-0" x 1/2" exterior grade plywood. Spacing of rafters shall be determined by the sheathing and other material used.
- e. Both gable ends and all exterior walls shall be finished with 5/8" T-111 plywood or other code approved materials.
- f. Roofing shall be 240 pound strip shingles over 15 pound felt. All roof edges shall have F.H.A. metal drip edge.
- g. Install one (1) metal overhead door, 7'-0" x 8'-0."
- h. Install one (1) 1-3/4" x 2'8" x 6'8" solid exterior door (half-combination, at owner's request) complete with jamb and entry lock.
- i. Install one (1) aluminum awning or S.H. window C-23.
- j. Vent through either gable or eaves.

77. ACCESSORY BUILDING-BLOCK

Construct a block masonry accessory building to specified dimensions along with a minimum, 3/12 roof pitch and 12" minimum roof overhang as follows.

- a. 8" x 16" continuous footer with two #5 rebars.
- b. 4" concrete floor slab reinforced with 6" x 6" - 10/10 wire or fiber mesh.
- c. 8" x 8" x 16" cement block walls. Top course shall be "U" lintel blocks with one 5/8" rod and 2500 psi concrete. If 2" x 8" P.T. plate is to be installed, anchor bolts shall be 1/2" x 6" spaced 6'-0" on center. Exterior corners to have steel dowels and continuous 5/8" rods into lintel. Core to be filled with concrete.
- d. Install engineered truss system, or conventionally frame per F.B.C. (2004 Residential) Chapter 23.

- e. Both gable ends and all exterior walls shall be finished with tempered hardboard, grooved panels, or 5/8" T-111 plywood.
- f. Install one (1) metal overhead door, 7'-0" x 8'-0."
- g. Install one (1) 2'8" x 6'8" (1-3/4" thick) exterior combination door with jamb and entry lock.
- h. Install one (1) aluminum awning or S.H. window C-23.
- i. Vent through either gable or eaves.

78. FENCES

a. New

Shall consist of the chain link variety. Hot dipped galvanized wire, post, and fasteners. Entrance gates shall be minimum 36," driveway gates minimum 10'-0." Posts shall be anchored in concrete. All fence installations shall be surveyed. Height to be in accordance with local zoning regulations.

b. Repair

When called for Work Write-Up shall consist of reinstalling or replacing with new line posts, corner posts, top rail or section of fencing (chain link or wood) and repair or replacement of gates.

79. DEMOLISH AND REMOVE FROM PREMISES

All items listed under this specification shall be removed from premises before calling for final inspection. Remaining areas shall be left clean.

80. SMOKE DETECTOR(s)

Shall be a UL, F.B.C. and N.E.C. approved and installed unit with battery back up. Unit shall have a minimum one-year warranty.

81. PAINTING

Painters must be approved by Community Development before contract is approved.

a. General

No lead based paint will be used for any application. (This means any paint containing more than one percent (1%) lead by weight in the total non-volatile contents.)

All surface conditions identified as immediate hazards shall be thoroughly cleaned (washed, sanded, scraped, wire brushed, or otherwise cleaned) so as to remove all cracking, scaling, peeling, chipping, and loose paint on applicable surfaces. Such surfaces that have been so treated shall then be repainted with two coats of a suitable non-lead paint in accordance with Section 35.14.

No interior or exterior painting is to be done without a painting inspection and approval to proceed (contractor shall request inspection after surface preparation has been

completed). Any painting over dirt or over loose, scaling, or peeling paint will be rejected.

All surfaces including floors, walls, ceilings, trim, doors, and both sides of window and door glass, shall be cleaned, and excessive paint removed from same upon completion of painting.

b. Products

All painting products shall be standard, nationally known brands of "best grade" first-line quality with labels on the containers. All paint shall be delivered to the job site in unopened containers. All painting products shall be applied in strict accordance with manufacturer's specifications. Paint colors only shall be selected by owner.

c. Preparation

All joints in trim siding and frames shall be caulked by gun method before application of paint. Prepare surfaces by scraping loose paint, point up all cracks and holes, and sand smooth both exterior and interior surfaces. All foreign material such as nails, hooks, fasteners, etc., shall be removed, and the holes filled and sanded smooth. (Putty nail holes, cracks, and blemishes after primer coat has been applied, but before application of finish coats.) All stained and porous surfaces shall be sealed before painting. Coat all knots, sap streaks, and water stains with one (1) coat shellac, or other approved sealer, before painting. All masonry surfaces shall be pressure cleaned or wire brushed free of loose material; all voids will be patched and allowed to dry prior to painting. All metal surfaces will be scraped free of loose materials, and all rust removed prior to painting. Galvanized metal shall be allowed to weather two (2) weeks prior to painting, or coat with zinc chromate or vinegar solution prior to painting.

d. Application

All surfaces to receive paint and special applications are indicated. The painting out of a room shall include all walls, ceiling, base trim, window and door trim, interior of all closets, kitchen cabinets, drawers, and both sides and all four (4) edges of doors. All wood trim, bathroom walls and ceiling, and kitchen walls and ceiling, shall be coated with washable semi gloss paint. All newly installed exterior wood shall receive one (1) coat of primer within 48 hours of installation.

NOTE: All painting shall adequately cover surface painted - ADDITIONAL COATS MAY BE NEEDED TO MEET THIS REQUIREMENT.

(1) Interior Painting--unless otherwise specified in the Work Write-Up, painting shall include one (1) primer coat and one (1) finish coat.

(2) Exterior Painting--unless otherwise specified in the Work Write-Up, painting shall include one (1) primer coat and one (1) finish coat.

- (3) Porch Floors--unless otherwise specified in the Work Write-Up, painting shall include two (2) coats of quality exterior finish and deck enamel.
- (4) Concrete and Masonry--painting shall include one (1) primer coat and one (1) finish coat of latex based paint.
- (5) Metal--follow manufacturer's instructions for metal surface preparation. Prime metal with one (1) coat of metal primer, then finish painting with one (1) coat of Rustoleum. Kilrust, or approved equal.

82. INSULATION

When installation of insulation material is specified, batts or loose-filled material of any type certified for this purpose may be used. The installed material shall conform to conform to the F.B.C. and its Energy Efficiency requirements:

Minimum installed allowances as allowed by code are:

R-30 for Attic Insulation

R-19 for Wall Insulation (frame walls)

R-5 for Wall Block Wall Insulation (Double fur as necessary to increase)

These "R" values shall be certified in writing by the installing contractor.

83. FILL AND GRADING

a. No wood surfaces shall be closer than 8" to any soil. Fill material shall be clean and free of stones and debris with no wood scraps. It shall have reasonable moisture content when placed. Fill material placed against newly damp-proof surfaces shall be an appropriate sand-gravel mix for proper soil drainage. Fill material shall be carefully placed against walls and shall be well compacted. Fills having a depth in excess of 30" shall be placed in layers of 12" in thickness or less, and each layer shall be well compacted. Where applicable, top 4" (3" under sod) shall be topsoil suitable to plant growth. Strip and stockpile topsoil that will be reused in the work.

b. Grading of yards and drainage away from building.

NOTE: Scheduling a yard to be graded does not necessarily imply that the pitch of the entire yard is to be changed. It usually means that various lump, depressions and irregularities are to be filled, and/or raked smooth to finish grade that insures proper drainage for the lot.

84. Eligible Energy Efficiency Improvements

The following energy efficiency improvements are eligible for funding to the extent that they meet individual program requirements and do not exceed maximum assistance levels:

Infiltration Control

- 1. Caulking

- a. Window frames
 - b. Door frames to exterior or unconditioned areas
 - c. Sole and top plate - when accessible only
- 2. Penetrations - utility, hose bib, and other exterior or interior joints or cracks in the building envelop
- 3. Weather stripping
- 4. Threshold replacement/installation - doorways to exterior or unconditioned areas
- 5. Exhaust vent damper installation
- 6. Fireplace - install flue damper, glass door and outside combustion air intake

Insulation

- 1. Ceiling - increase to R 30
- 2. Exterior walls
 - a. Frame - increase to R 11
 - b. Block - increase to R 5
- 3. Ductwork - forced air heating and cooling in unconditioned areas - increase to R 6
- 4. Water pipes (hot & supply) within 6 feet of water heater fittings

Heating & Cooling System

- 1. Maintenance service to heating or built in cooling system
- 2. Replace failed heating system with high efficiency unit
- 3. Thermostat replacement

Hot Water Conservation - installation of flow restricting device on or within shower head to limit flow to no more than 3 GPM

Work performed under this section shall meet the requirements of the State of Florida Energy Efficiency Code for Building Construction.

